

AMENDMENTS TO THE CLAIMS

Please cancel claims 6 and 7 without prejudice or disclaimer of the subject matter therein. Please amend claims 1 and 11, as indicated below:

1. (Currently Amended) A process for obtaining deoxyribonucleic acid (DNA) from fish spermatogonium, which comprises:

i) disrupting a fish spermatogonium to produce a milky-white colloid containing DNA;

ii) adding an alkaline solution of pH 8 to pH 12 that contains not less than 4 M of salts selected from the group consisting essentially of sodium nitrite, sodium carbonite, and sodium phosphate to said milky-white colloid;

iii) effectuating acylation reaction of a mixture obtained in step ii); and

iv) adding ethanol solution to a mixture obtained in step iii) to precipitate DNA.

2. (Original) The process according to claim 1, wherein said fish spermatogonium is selected from the group consisting of the spermatogonium of squid and the spermatogonium of pollack.

3. (Canceled) The process according to claim 1, further comprising effectuating acylation reaction of the mixture obtained in step ii).

4. (Previously Amended) The process according to claim 1, wherein said acylation reaction is performed by using anhydride compounds.

5. (Original) The process according to claim 4, wherein said anhydride compound is acetic anhydride.

6. (Canceled) The process according to claim 1, wherein said salt contained in the alkaline solution is monovalent salt.

7. (Canceled) The process according to claim 6, wherein said salt is selected from the group consisting of sodium nitrate, sodium carbonate and sodium phosphate.

8. (Original) The process according to claim 1, wherein said spermatogonium is disrupted by rotating-knife type crusher or sonicator.

9. (Previously Amended) The process according to claim 1,

further comprising a step for hydrolysis of RNA.

10. (Previously Amended) The process according to claim 9, wherein said step for hydrolysis of RNA is performed by the alkali or RNase.

11. (Currently Amended) A process for obtaining deoxyribonucleic acid (DNA) from fish spermatogonium, which comprises:

i) disrupting a fish spermatogonium in an alkaline solution of pH 8 to pH 12 that contains not less than 4 M of salts selected from the group consisting essentially of sodium nitrite, sodium carbonite, and sodium phosphate;

ii) effectuating acylation reaction of a mixture obtained in step i); and

iii) adding ethanol solution to the mixture obtained in step ii) to precipitate DNA.

12. (Canceled) The process according to claim 11, further comprising effectuating acylation reaction of the resulting mixture obtained in step i).

13. (Previously Amended) The process according to claim 11,

wherein said acylation reaction is performed by using anhydride compounds.

14. (Original) The process according to claim 13, wherein said anhydride compound is acetic anhydride.

15. (Canceled) A liquid manure comprising the residual by-product solution after separation of DNA from the solution obtained by disrupting fish spermatogonium and then treating by alkaline solution of pH 8 to pH 12 that contains more than 1 M of salts, wherein said salt is selected from the group consisting of sodium nitrate, and sodium phosphate.